imparted by laser shock peening (LSP) extending into said airfoil from said laser shock peened surface wherein said deep compressive residual stresses extend from said laser shock[ed] peened surface to a depth in a range of about 20-50 mils into said region.

2. (TWICE AMENDED) A component as claimed in claim 1 further comprising:

said first laser shock peened surface located along said pressure side of said leading edge,

a second laser shock peened surface located along said suction side of said leading edge and extending radially along at least a portion of said leading edge and extending chordwise from said leading edge, and

a second region having deep compressive residual stresses imparted by laser shock peening (LSP) extending into said airfoil from said second laser shock peened surface wherein said deep compressive residual stresses extend from said laser shock[ed] peened surface to a depth in a range of about 20-50 mils into said regions.

6. (THRICE AMENDED) A gas turbine engine compressor blade comprising:

a metallic compressor blade airfoil having a leading edge and a trailing edge and a pressure side and a suction side,

at least a first laser shock peened surface on a first side of said airfoil,

said laser shock peened surface extending radially along at least a portion of said leading edge and extending chordwise from said leading edge, and

a first region having deep compressive residual stresses imparted by laser shock peening (LSP) extending into said airfoil from said laser shock peened surface wherein said deep compressive residual stresses extend from said laser shock[ed]

peened surface to a depth ~~in a range of about~~ 20-50 mils into said region.

7. (TWICE AMENDED) A compressor blade as claimed in claim 6 further comprising:

said first laser shock peened surface located along said pressure side of said leading edge,

a second laser shock peened surface located along said suction side of said leading edge and extending radially along at least a portion of said leading edge and extending chordwise from said leading edge, and

a second region having deep compressive residual stresses imparted by laser shock peening (LSP) extending into said airfoil from said second laser shock peened surface wherein said deep compressive residual stresses extend from said laser shock[ed] peened surface to a depth in a range of about 20-50 mils into said regions.

11. (THRICE AMENDED) A gas turbine engine compressor blade comprising:

a compressor blade metallic airfoil having a leading edge and a trailing edge,

at least a first laser shock peened surface on at least one side of said airfoil,

said first laser shock peened surface extending radially at least along a portion of said trailing edge and extending chordwise from said trailing edge, and

a first region having deep compressive residual stresses imparted by laser shock peening (LSP) extending into said airfoil from said first laser shock peened surface wherein said deep compressive residual stresses extend from said laser shocked peened surface to a depth in a range of about 20-50 mils into said region.

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16. (THRICE AMENDED) A gas turbine engine compressor blade comprising:

a compressor blade metallic airfoil having pressure side, a suction side, a leading edge, and a trailing edge,

a first laser shock peened surface extending radially at least along a portion of one of said edges on a side of said airfoil extending radially along and chordwise from said one of said edges,

a second laser shock peened surface extending radially at least along a portion of the other one of said edges on a side of said airfoil extending radially along and chordwise from said other one of said edges, and

first and second regions having deep compressive residual stresses imparted by laser shock peening (LSP) extending into said airfoil from said first and second laser shock peened surfaces respectively along said leading and trailing edges of said airfoil wherein said deep compressive residual stresses extend from said laser shocked peened surfaces to a depth in a range of about 20-50 mils into said regions.

REMARKS

The Office Action mailed December 2, 1997 has been carefully considered and the amendments above and following remarks are respectfully submitted in response to the Examiner's Objection to Figure 1 in the Drawings and the Rejection of Claims 1-20 and in light of a telephone conversation between the Examiner and the Applicants patent attorney, Steven J. Rosen, on February 19, 1998.

DRAWINGS

1. The Examiner's Objection to Figure 1, because hatching has not been utilized to indicate the sectional portions, has been studied and the Applicants have amended the specification to describe the figures more accurately in accordance with the